Central Valley Flood Protection Coordinating Committee

July 22, 2015

Presented by:
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Today's Discussion

Where We've Been

- CVFPP Public Workshop Summary

Where We Are

- Hydrologic Variability / Climate Change Considerations for 2017 CVFPP Update

Where We're Going

- BWFS & Conservation Strategy Planning Updates

Where We've Been

CVFPP Public Workshop Summary

DWR CVFPP Public Workshop

- June 24, 2015 at Howe Park in Sacramento
- Workshop objectives:
  - Provide updates about 2017 CVFPP and define purpose, scope, timing
  - Discuss DWR's proposed outcome-based planning approach
  - Solicit questions and comments from participants
  - Identify next steps in CVFPP development process

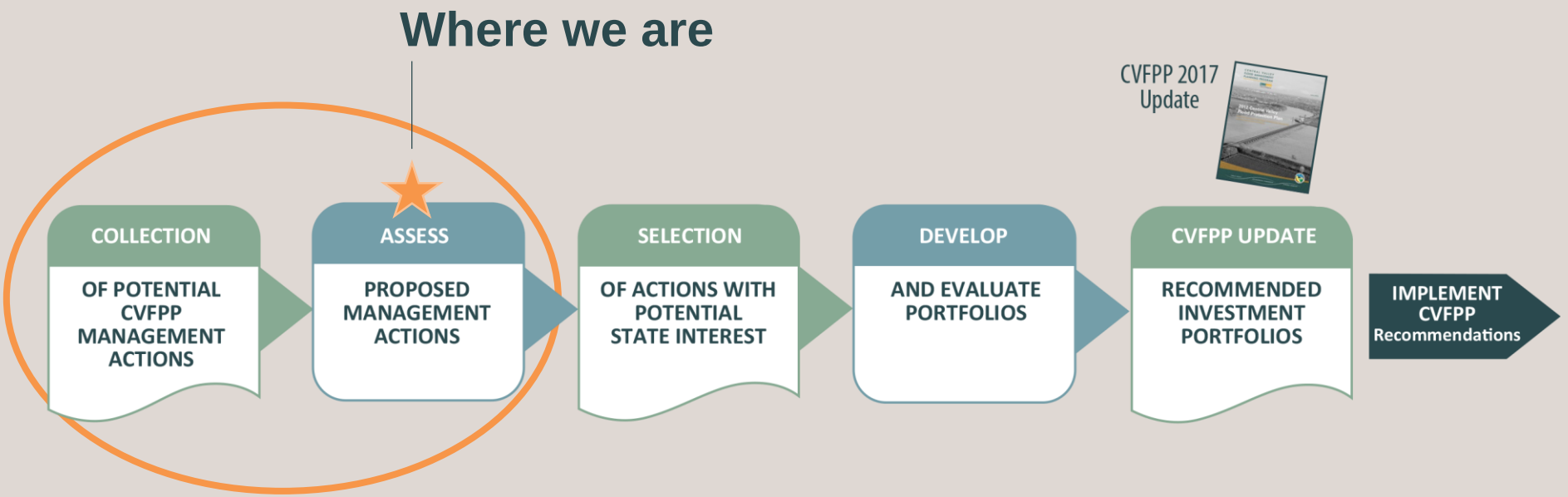
Updates on CVFPP components

- Conservation Strategy
- Basin-Wide Feasibility Studies
- Regional Flood Management Planning
- Outcome-Based Planning Approach

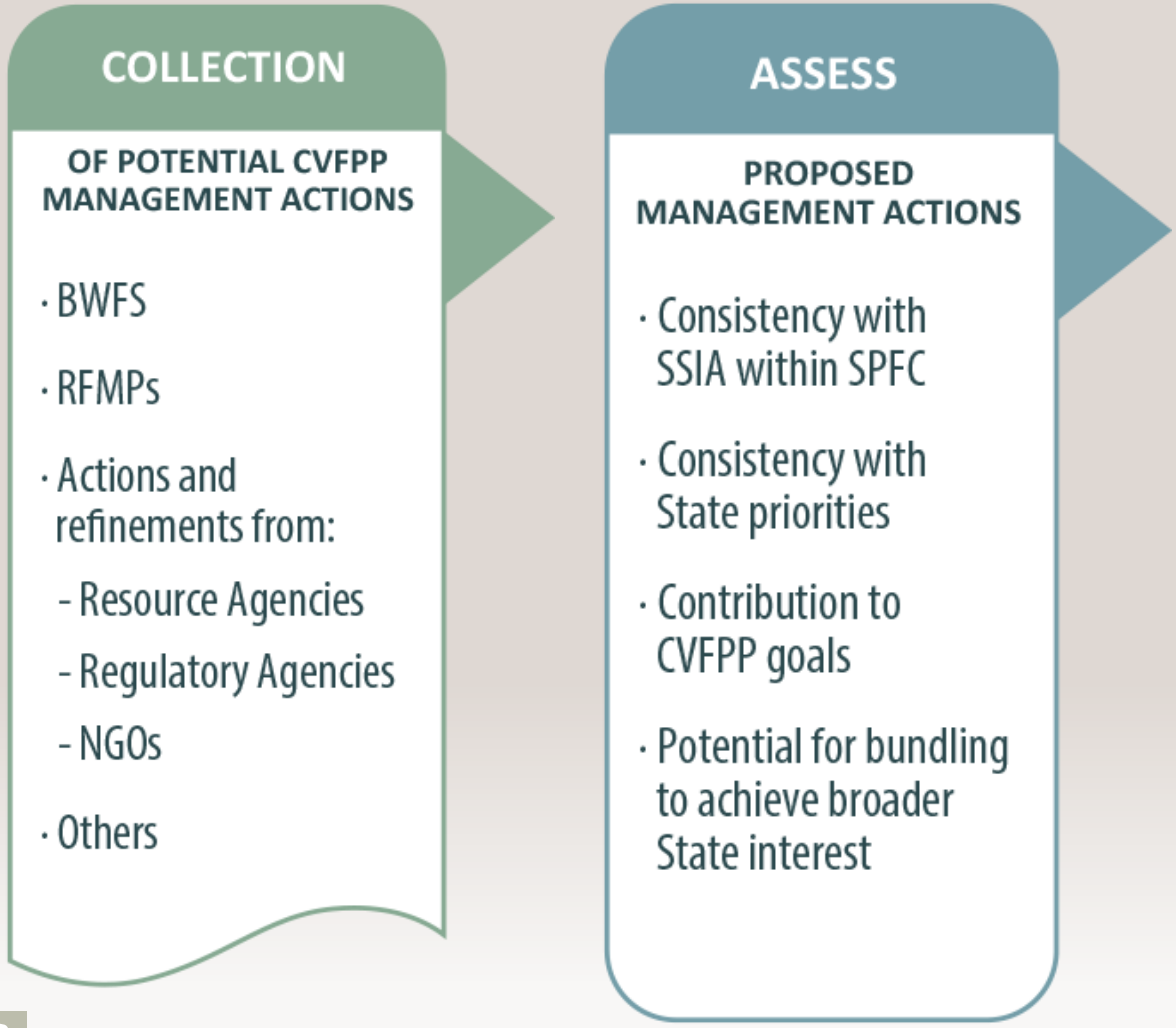
How CVFPP Contributes to Intended Outcomes

CVFPP Goals	Intended Outcomes
Primary Goal: Improve flood risk management	
Reduce the chance of flooding	
Reduce damages once flooding occurs	
Improve public safety, preparedness, and emergency response	
Supporting Goals	
Improve Operations and Maintenance	
Promote Ecosystem Functions	
Promote Multi-benefit Projects	
Improve Institutional Support	

Outcome-Based Flood Management for the Central Valley



Assess Proposed Management Actions



What's Next

Continue to refine BWFS and Conservation Strategy; Complete RFMP assessment

Assess potential management actions, develop and evaluate portfolios

Discuss outcome-based planning in the context of flood management

Learn More, Become Involved

Email Us / Join Our Mailing List
cvfmp@water.ca.gov

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www.water.ca.gov/cvfmp

Review Past Presentations
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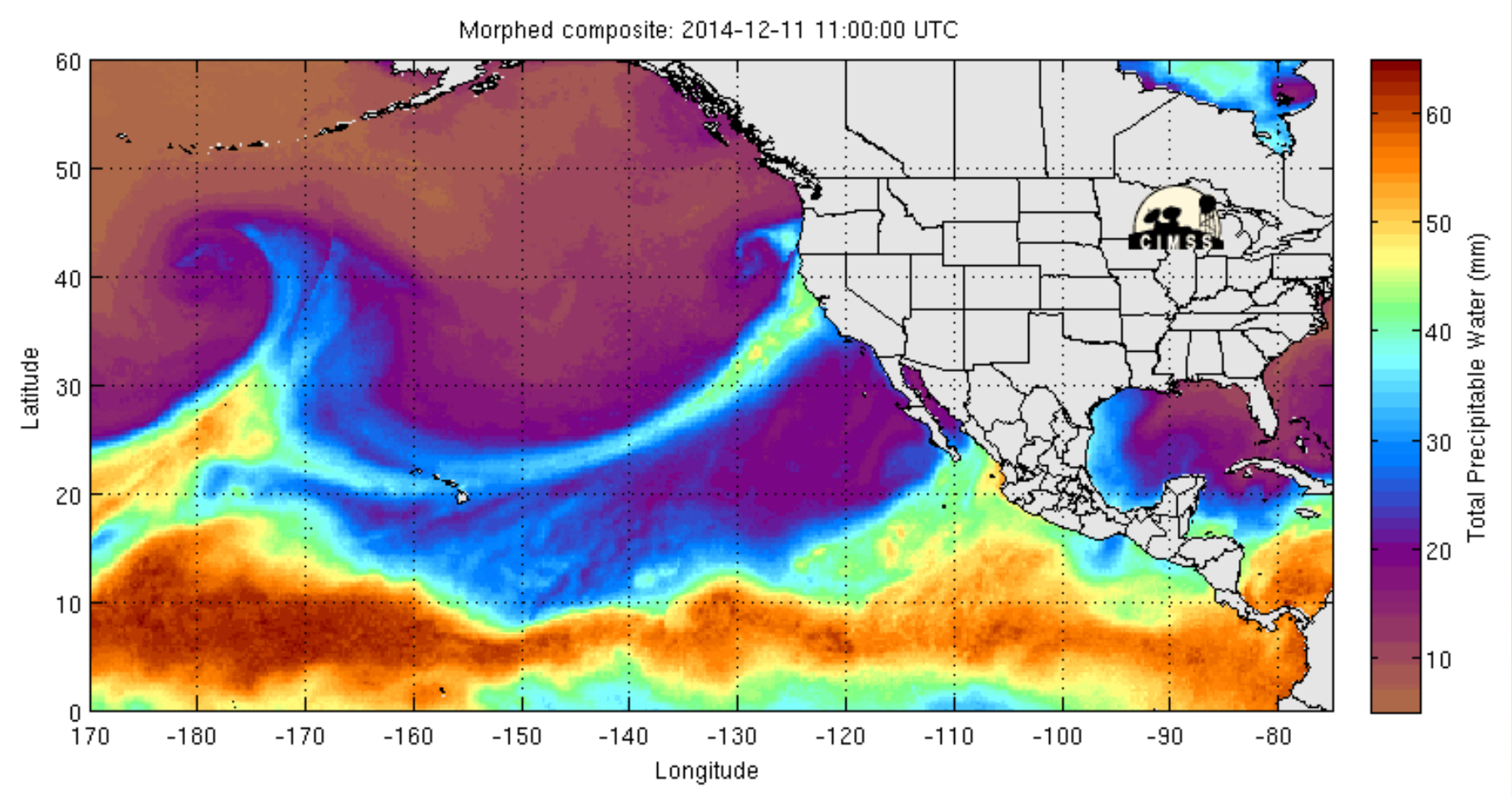
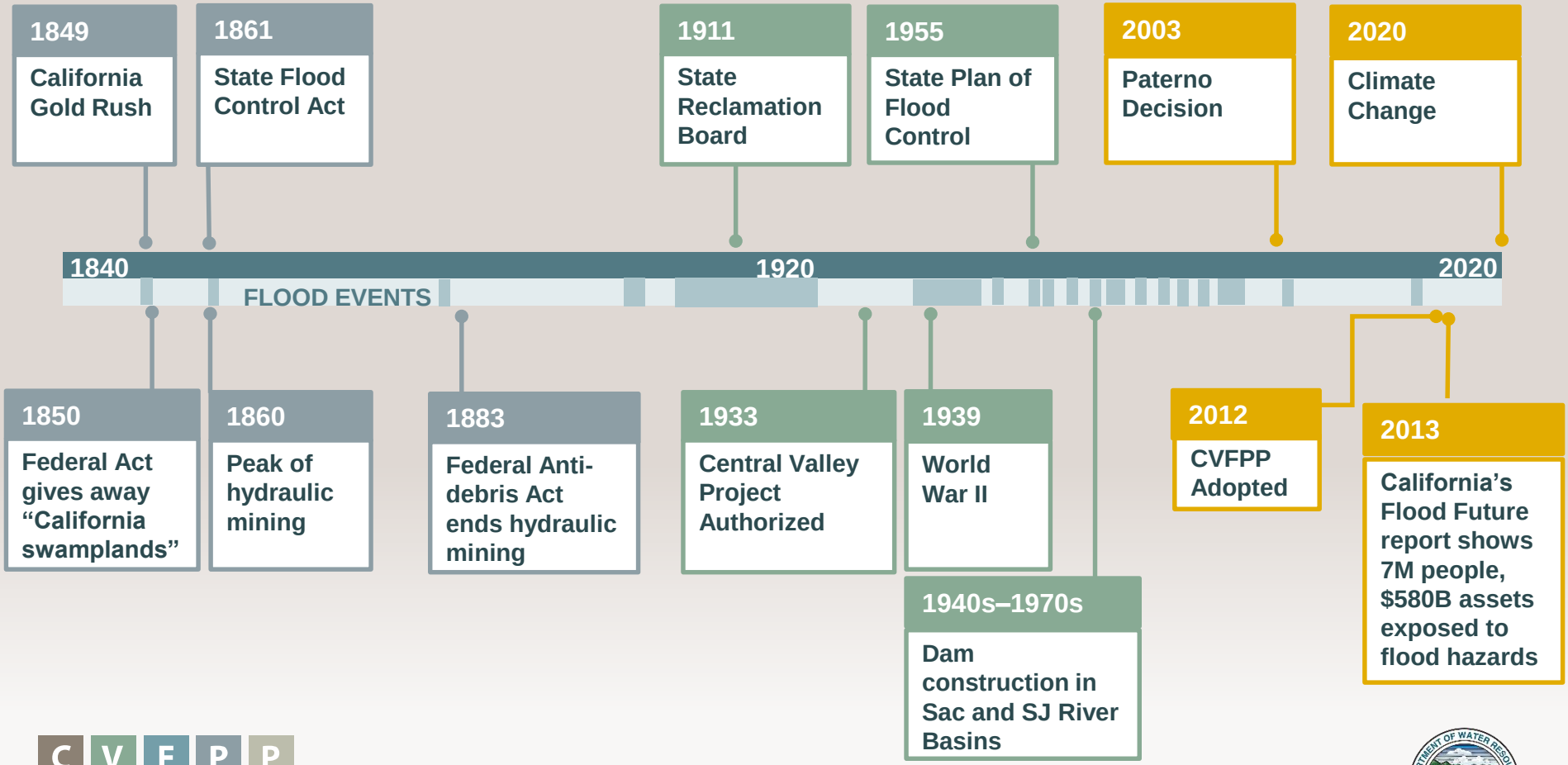
Where We Are

Hydrologic Variability / Climate Change Considerations for 2017 CVFPP Update

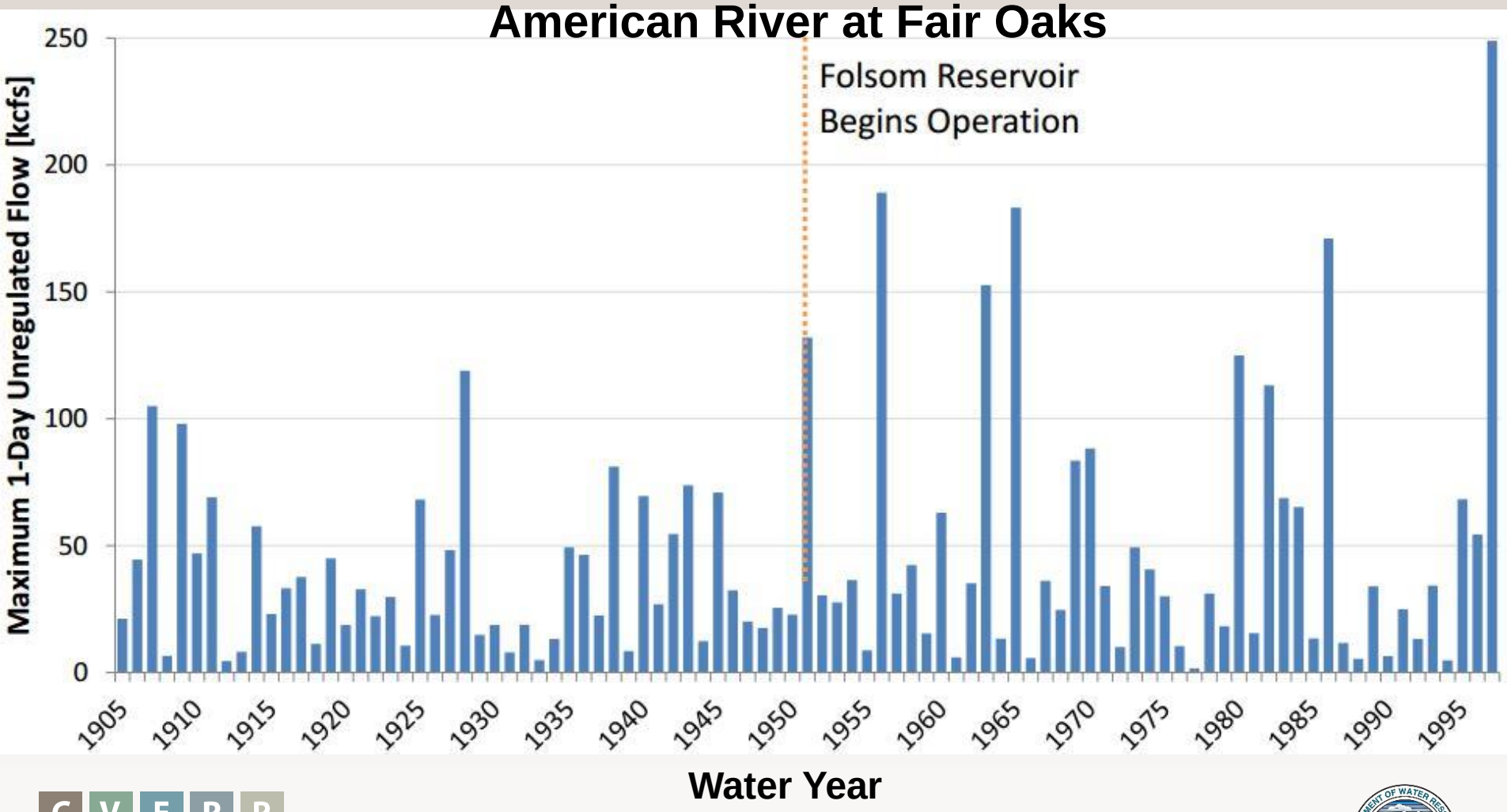
Hydrologic Variability Considerations



California Flood Management Milestones



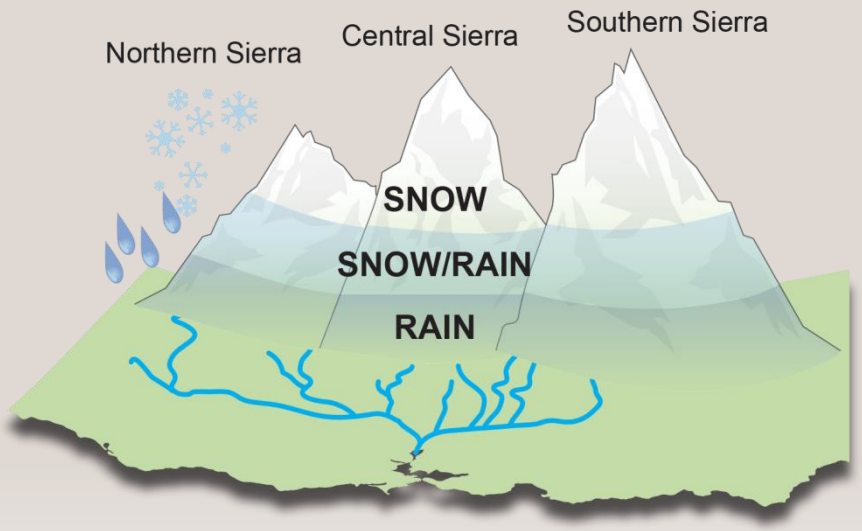
Hydrologic Variability Considerations: American River Example



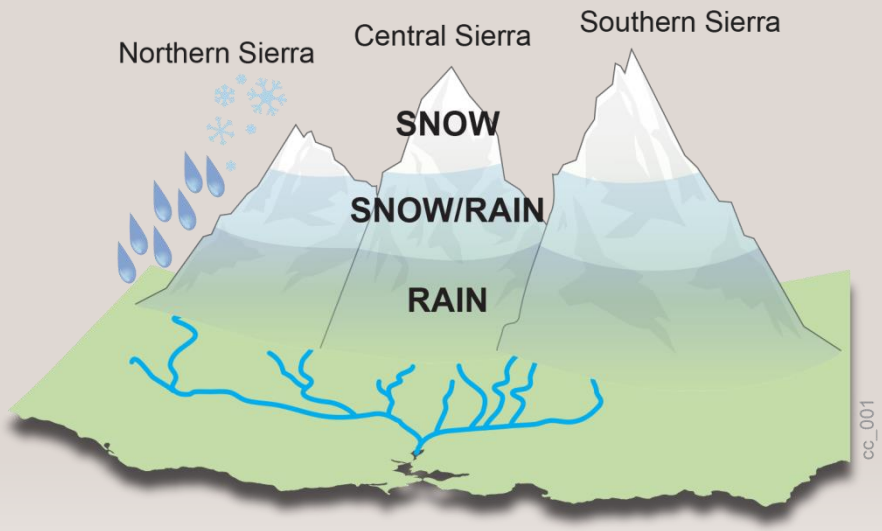
Source: Sacramento and San Joaquin Comprehensive Study

How Temperature Increases Influence Storm Runoff Volumes

CONCEPT GRAPHIC



Existing Rain / Snow Trends



Future Rain / Snow Trends

How Sea Level Rise Influences System Outflow

Estimates of Future Sea Level Rise in California

	Low	Mean	High
2030	4.3 cm	14.4 cm	29.7 cm
2050	12.3 cm	28.0 cm	60.8 cm
2062*	18.5 cm (0.61 ft.)	38.8 cm (1.27 ft.)	83.1 cm (2.73 ft.)
2100	42.4 cm	91.9 cm	166.4 cm

(Source: NRC, 2012)

Climate Change Impacts

- Contributes to rise in extreme weather events
- Expected to generate more extreme floods, more seasonal rain, less snow and rising sea levels
- Increases stress on the system

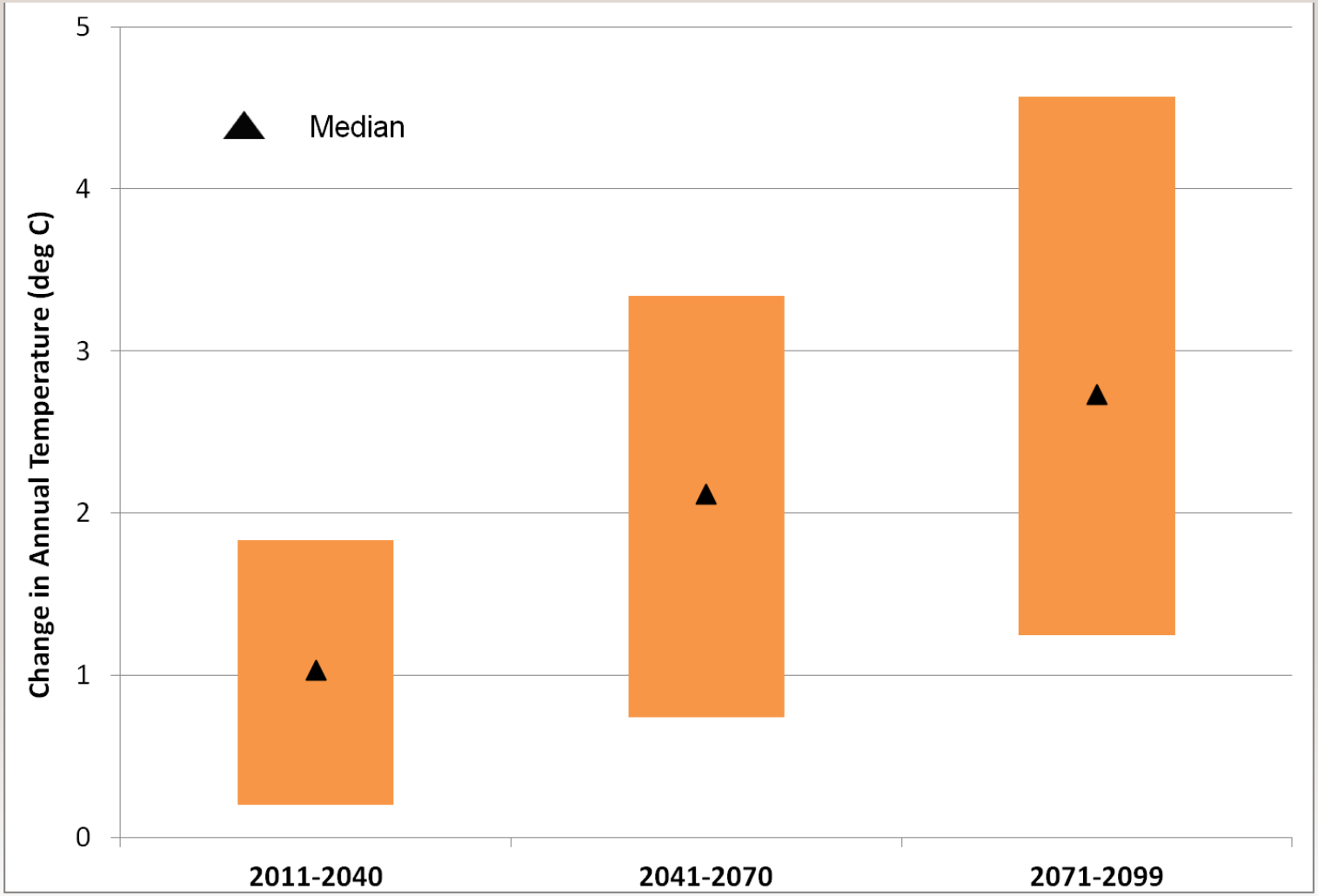
Climate Change Approach for 2017 CVFPP

- Multi-phased approach
- Uses latest science and data
- Integrates existing hydrologic and flood risk approaches
- Consistent with State's climate change policies

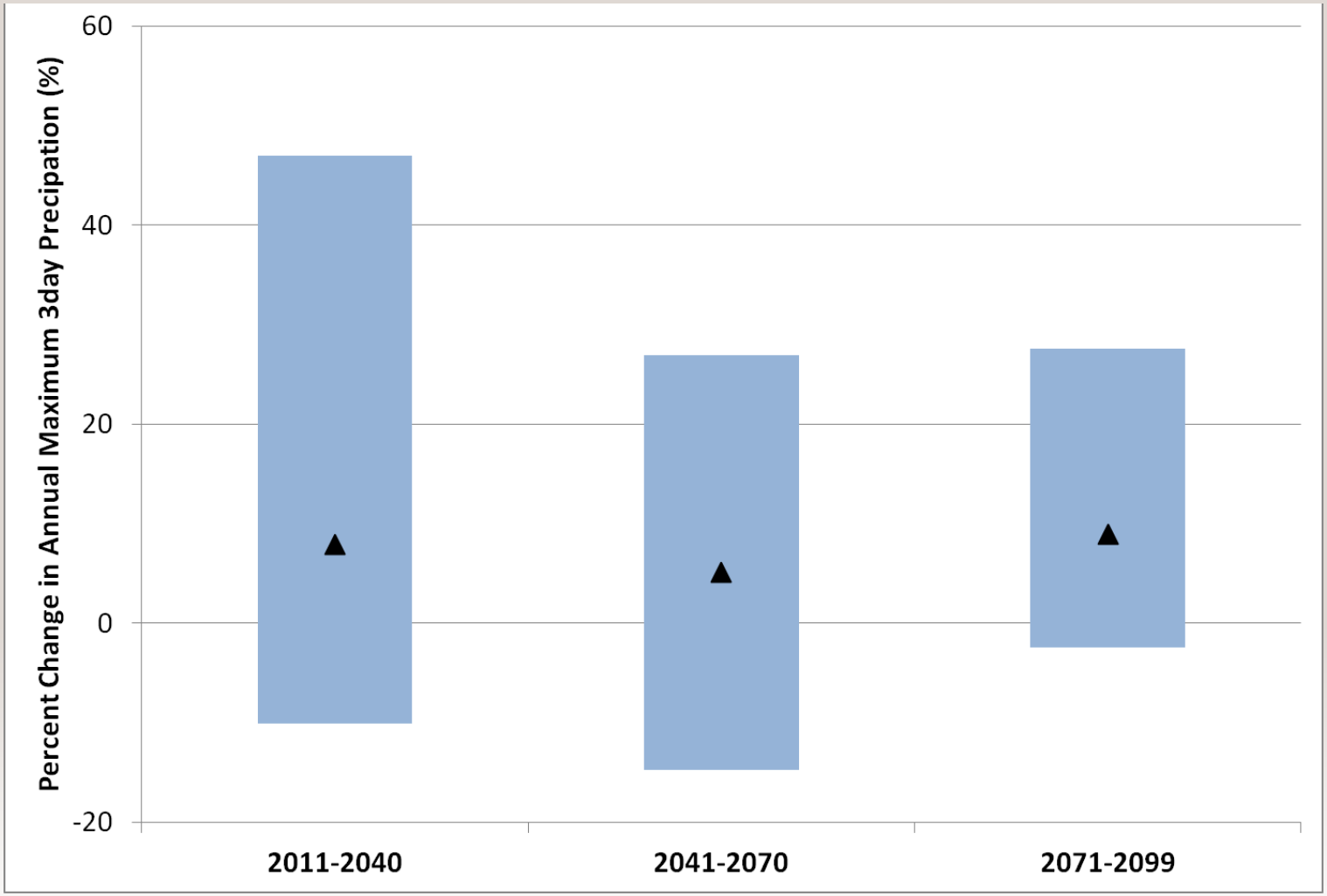
Refinement Using a Multi-Phased Approach

- Phase 1 – included in 2012 plan
- Phase 2a – 2007 global climate models, 112 independent climate projections
- Phase 2b – More robust analysis and integration; 2013 global climate models, 200 independent climate projections

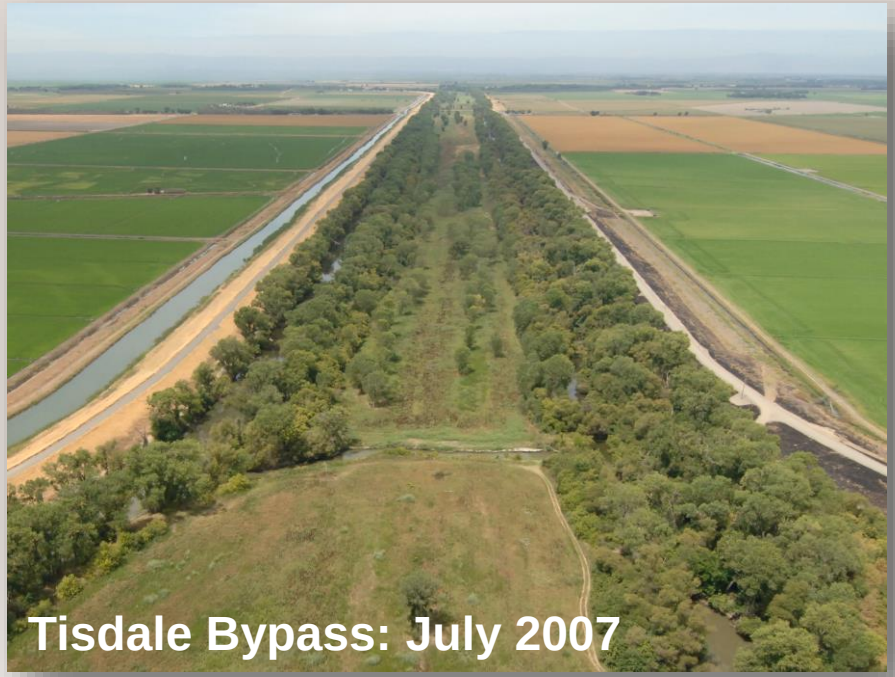
Increasing Temperatures



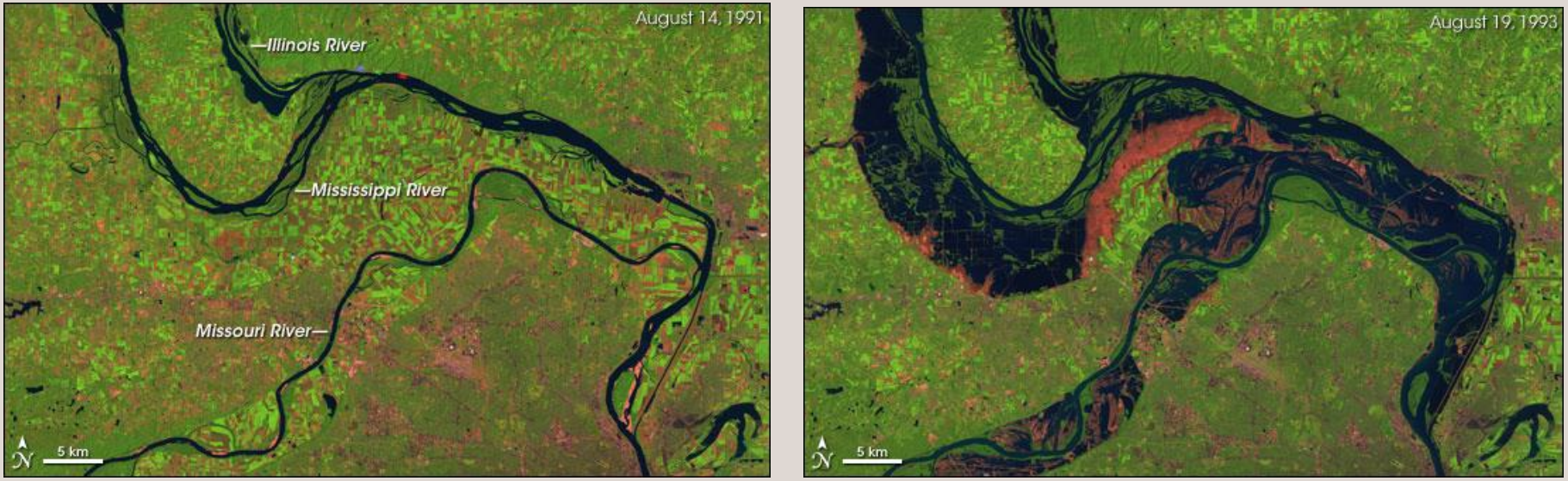
Increasing Precipitation Extremes



Problems, Constrains, Opportunities



Rise & Fall of Rivers: Mississippi River Basin Concept

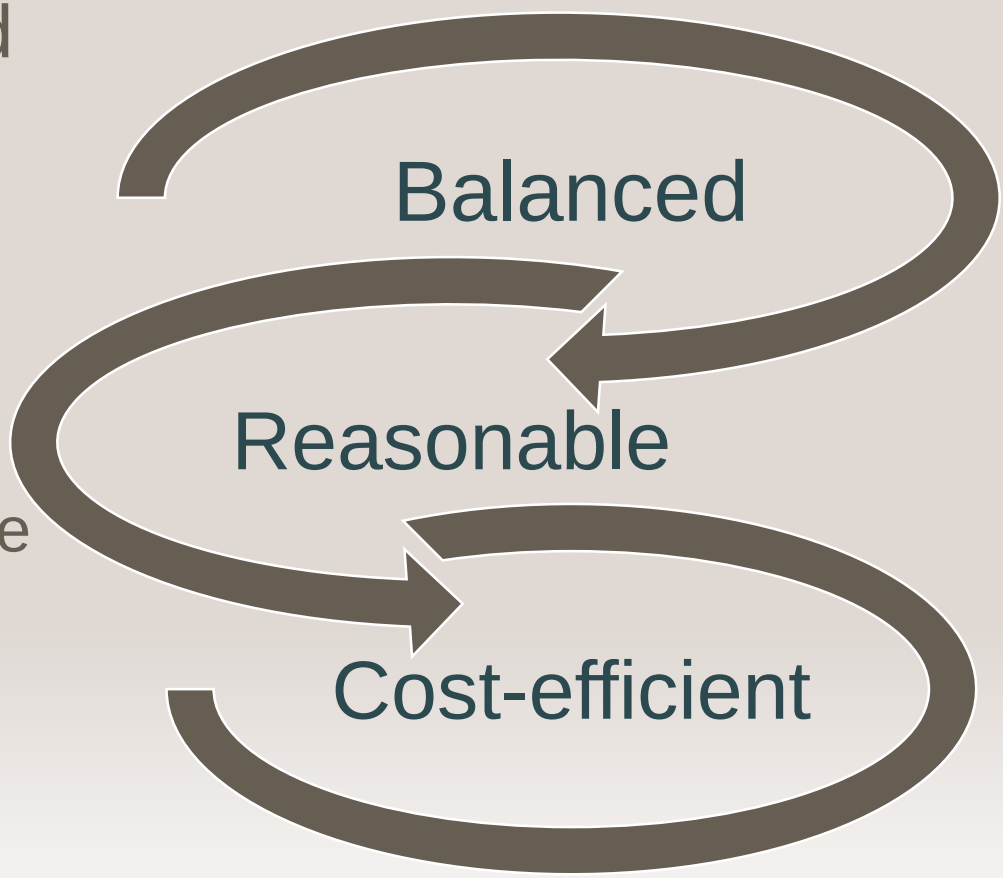


Satellite imagery of the confluence of the Missouri and Mississippi Rivers north of St. Louis, Missouri.

- ✓ Seasonal vs. Inter-annual Differences – Flow & Physical Footprint
- ✓ Floodplains Near Rivers Can Actually Be Higher Elevation than Flood Terraces

Attaining a Resilient System

- Goal is a resilient flood management system that:
  - Functions effectively over a long period
  - Can recover from large flood events
  - Addresses hydrologic variability climate change



Where We're Going

BWFS & Conservation Strategy Planning Updates

BWFS & Conservation Strategy Planning Updates

- Conservation Strategy Now Available
  - Public comments will inform the Final Draft Conservation Strategy and 2017 CVFPP Update
- BWFS Technical Analysis Continues
  - Further refinement toward formulation of State-Preferred System Configuration
  - Draft BWFS by end of 2015

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